

## WELCOME TO DOE'S *RCRA ORIENTATION FOR FACILITY MANAGERS* COURSEWARE

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- Background** This module comprises one component of courseware materials that were developed by DOE's Office of Environmental Policy and Assistance, RCRA/CERCLA Division, EH-413, in response to a request from the Deputy Assistant Secretary for Nuclear and Facility Safety (EH-3). The original course was titled *RCRA Orientation for Nuclear and Facility Safety* and was presented on March 5, 1997, at Germantown, MD. Presentation materials were derived from the more formal three-day course titled DOE's *RCRA Orientation Workshop*, which was developed by EH-413 under a joint funding venture that included the Savannah River Site and the Albuquerque Operations Office.
- Courseware Content** Although derived from the three-day workshop, DOE's *RCRA Orientation for Nuclear and Facility Safety* (now titled *RCRA Orientation for Facility Managers*) was expanded by developing two new modules to meet the needs of Nuclear Safety Managers. One of the new modules (*Corrective Action*) compares and contrasts RCRA closure and corrective action with CERCLA remedial action by using Oak Ridge Reservation as an example of a radioactively contaminated site closed under RCRA, but undergoing remediation under CERCLA. The other module (*Emerging Issues*) offered a snapshot of the emerging regulations that were expected to impact the Department most dramatically. The remaining courseware modules include:
- Introduction to RCRA and Liability Overview,
  - Overview of Solid Waste Determination,
  - Overview of Hazardous Waste Determination, and
  - Permitting.
- PDF "Handout" files only, which contain the aforementioned modules, are designed to serve as stand-alone resources and are equipped with: (1) A list of module contents, (2) Module-specific enabling objectives; (3) Self-assessment questions and answers; (4) A module-specific regulatory citation/key word index; and (5) A module-specific cross-link table that identifies hypertext links to additional Internet resources for hazardous waste-related information.
- Using the Courseware Materials** Within the PDF Handout modules, users are encouraged to examine the module's Regulatory-Statutory Citation/Key Word Index to identify the availability and location of topics of interest. In contrast, users can simply "dig-in" and sequentially examine the courseware's content. For less extensive reviews or to download additional course presentation materials as needed, users can return to the [RCRA Orientation for Facility Managers Home Page](#) to access electronic files containing the remaining PDF Handout and/or Vugraph files.

To assist users in accessing additional Internet resources, where possible, module-specific hypertext links have been inserted into select points within each of the six PDF Handout courseware modules. Hypertext links appear in both the slide and notes portions as either *blue italicized text* (the first time a link to a particular resource is offered in a given module) or *green italicized text* (each subsequent link to that same resource) and have been assigned to terms and phases for which additional Internet resources such as other EH-413 guidance documents, other Internet Websites, etc. are available. Upon identifying a highlighted term or phase of interest, users generally can access the additional Internet resources by clicking on the highlighted text, which will then hypertext link to another Internet resource. Additional information for obtaining those resources that are not Internet-accessible as well as the objectives, content and organization, use, list of acronyms, Internet resources, and master index is presented in the [\*Front-End Materials section\*](#) (first section).

**Feedback  
And  
Contacts**

If you have difficulty in downloading or reviewing modules comprising DOE's *RCRA Orientation for Facility Managers*, [contact our Webmaster](#) and please [provide us with feedback](#). If you are interested in attending the three-day *RCRA Orientation Workshop*, please contact the [National Environmental Training Office](#). Additional questions concerning this courseware or the information presented therein may be directed to Atam Sikri of my staff by:

- Calling at (202) 586-1879,
- Faxing messages to (202) 586-0955, or
- Communicating electronically, via Internet, to [atam.sikri@eh.doe.gov](mailto:atam.sikri@eh.doe.gov).



## **Solid Waste Definition**

### **List of Module Contents -- Module SW**

Solid Waste Definition Module .....	SW-1
Self-Assessment Questions: Solid Waste Definition Module .....	SW-16
Self-Assessment Answers: Solid Waste Definition Module .....	SW-17
Solid Waste Definition Module Statutory-Regulatory Citation/Key Word Index .....	SW-18
Solid Waste Definition Module Cross-Links .....	SW-20

### **Additional Resources Cited in this Module (Internet-Accessible Unless Otherwise Noted)**

RCRA Definitions of Solid and Hazardous Waste Automated Guidance  
(Windows Version); <http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html>

Exclusions and Exemptions from RCRA Hazardous Waste Regulation;  
DOE/EH-231-034/0593; <http://tis-nt.eh.doe.gov/oepa/guidance/rcra/exclude.pdf>

OEPA Environmental Law Summary: Resource Conservation and Recovery Act;  
[http://tis-nt.eh.doe.gov/oepa/law\\_sum/RCRA.HTM](http://tis-nt.eh.doe.gov/oepa/law_sum/RCRA.HTM)

“Code of Federal Regulations - Retrieve CFR by citation”; <http://www.access.gpo.gov/nara/cfr/index.html>”

Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990;  
<http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf>

Overview of the Identification of Hazardous Waste Under RCRA; DOE/EH-231-007/1291;  
<http://tis-nt.eh.doe.gov/oepa/guidance/rcra/define.pdf>

OEPA Environmental Law Summary: Federal Facility Compliance Act;  
[http://tis-nt.eh.doe.gov/oepa/law\\_sum/FFCA.HTM](http://tis-nt.eh.doe.gov/oepa/law_sum/FFCA.HTM)

Federal Facility Compliance Act Implications for RCRA Corrective Action;  
DOE/EH-231-015/0994; <http://tis-nt.eh.doe.gov/oepa/guidance/rcra/impl.pdf>

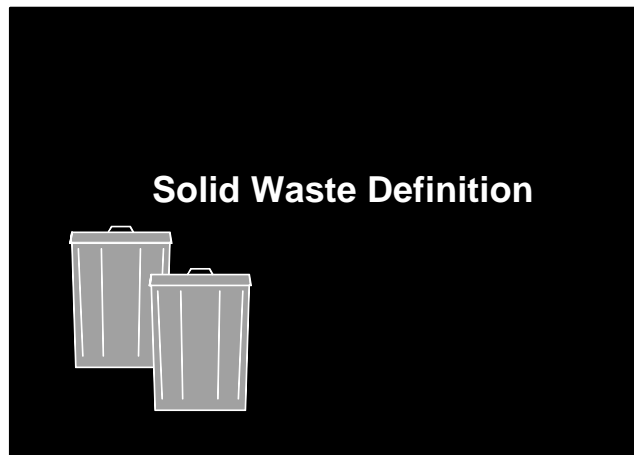
OEPA Environmental Law Summary: Atomic Energy Act and Related Legislation  
[http://tis-nt.eh.doe.gov/oepa/law\\_sum/AEA.HTM](http://tis-nt.eh.doe.gov/oepa/law_sum/AEA.HTM)

EPA Mixed Waste Team Home Page; <http://www.epa.gov/radiation/mixed-waste/index.html#general>

Special Requirements Applicable to Hazardous Waste Automated Guidance (Windows Version);  
<http://tis-nt.eh.doe.gov/oepa/programs/special.html>

Land Disposal Restrictions (LDR) Overview; DOE/EH-231/005/0293;  
<http://tis-nt.eh.doe.gov/oepa/guidance/rcra/ldr-over.pdf>

Identification of Certain RCRA Wastes — the F-Spent Solvent, P, and U Listings;  
DOE/EH-231-008/1291; <http://tis-nt.eh.doe.gov/oepa/guidance/rcra/spent.pdf>



The definition of solid waste is crucial to the hazardous waste management program, since it determines which materials are potentially subject to Subtitle C controls. The purpose of this module is to familiarize participants with the solid waste concept and the regulations that are used when conducting solid waste determinations to ensure participants recognize that recyclable materials may or may not qualify as solid wastes and require management as hazardous waste, even though they are reusable.

By the end of this module, participants should be able to:

1. State the general definition of discard and explain the significance of being discarded. (pp. SW-2, 3)
2. Cite three elements that comprise the regulatory definition of discarded. (p. SW-4)
3. List at least three exclusions from the definition of solid waste. (p. SW-5)
4. State at least three instances recyclable materials qualify as solid waste. (p. SW-7, 8)
5. Explain three methods of recycling during which recyclable materials are *not* a solid waste. (p. SW-8)
6. List the five types of secondary materials. (p. SW-10)
7. State two considerations that must be evaluated when determining whether a particular recyclable materials qualifies as solid wastes. (pp. SW-6, 10, 14)
8. Explain (relative to the Subtitle C program) the significance of being a solid waste. (p. SW-14)



RCRA's hazardous waste management requirements only apply to materials that can no longer serve their original intended purpose and are, therefore, discarded from their immediate use (i.e., they qualify as *solid wastes*).

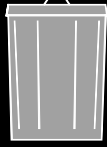
What Is “Solid Waste?”  
The Law Says It Is

Any garbage, refuse, sludge. . ., and any other *discarded* material, including: *solid, liquid, semisolid or contained gaseous material*, resulting from industrial, commercial, mining, and agricultural operations and from community activities. . .

The definition of *solid waste* is not based on the physical form of the material, but hinges on the fact that the material is no longer usable. Section 1004(27) of *RCRA*, the law, defines a solid waste as:

“Any garbage, refuse, sludge..., and any other discarded material, including: solid, liquid, semisolid or contained gaseous material, resulting from industrial, commercial, mining, and agricultural operations and from community activities . . .”

### **Solid Wastes** Are Materials That:



- Are thrown away (abandoned),
- Are stored and managed to facilitate their disposal (abandoned),
- Can no longer serve their original intended purpose (abandoned, recycled), or
- Are discarded from one use but are accumulated for reuse elsewhere (with a few exceptions) (recycled).

The regulatory definition explains that solid wastes are discarded materials and further explains that “discarded” means **abandoned, recycled, or inherently wastelike** materials [40 CFR 261.2(a)].

The term “**abandoned**” means burned or disposed of or accumulated to be burned or disposed of. Burning includes burning for energy recovery and burning for disposal [40 CFR 261.2(b)].

Materials are solid wastes if they are **recycled** (or accumulated, stored, or treated before recycling) by (1) applying to the land or using in products that are applied to the land (unless the material is a commercial chemical product and land application is its ordinary manner of use) or (2) burning for energy recovery or using to produce fuels (unless the material is a commercial chemical product that is itself a fuel).

Wastes that are processed to obtain usable product, such as spent solvents that are distilled, are also solid wastes. [40 CFR 261.2(c)]

The term “**inherently wastelike,**” which is not shown on the slide, has special meaning. EPA can designate any waste that meets certain criteria [40 CFR 261.2(d)] as “inherently wastelike.” Such wastes, even when recycled, are considered solid wastes. The following waste streams have been designated as inherently wastelike: F020, F021, F022, F023, F026, and F028 [40 CFR 261.2(d)(1)] and certain secondary materials fed into halogen acid furnaces [40 CFR 261.2(d)(2)].

### **What Is Not A Solid Waste?**

- Domestic sewage (untreated) and mixtures of sewage and other materials that pass through a POTW
- Industrial wastewater discharges that are point sources under NPDES
- Source, special nuclear, and by-product material subject to the AEA, as amended
- Materials recycled in a closed loop

The **statutory and regulatory exclusions** from the solid waste definition are important because such excluded wastes are not regulated under RCRA's hazardous waste provisions. Some of the more important include:

**POTW exclusion:** Constituents that are discharged to Publicly Owned Treatment Works (POTWs) and mixed with domestic sewage are not solid wastes and, therefore, are not regulated as hazardous even if they would otherwise qualify as hazardous wastes [40 CFR 261.4(a)(1)]. POTWs are off-site treatment works associated with nearby towns and cities to which an installation may discharge. The **Federal Facility Compliance Act (FFAct)** [42 USC 6939(e)(a)] extends the domestic sewage exclusion to federally owned treatment works (**FOTWs**) that meet certain criteria (e.g., wastes entering the FOTW are not prohibited from land disposal under RCRA or meet applicable pretreatment standards under the Clean Water Act). The FFAc prohibits discharge of hazardous waste to FOTWs [42 USC 6939(e)(b)].

**National Pollutant Discharge Elimination System (NPDES) exclusion:** This exclusion only applies to the NPDES-permitted discharge point. The exclusion does not apply to activities that occur upstream of the discharge point, such as treatment works [40 CFR 261.4(a)(2)].

**Atomic Energy Act (AEA)-regulated waste exclusion: RCRA Section 1004(27)** excludes source, special nuclear, and by-product material as defined by the Atomic Energy Act (AEA) of 1954, as amended, from the definition of solid waste. Thus, RCRA does not regulate source, special nuclear, and by-product materials. The exclusion only applies to source, special nuclear, and by-product radioactive materials. Nonradioactive hazardous waste components mixed with the radioactive waste are regulated under RCRA. For example, chromate-contaminated wipes that are also low level radioactive wastes are RCRA-regulated even though the radionuclides they contain are excluded [40 CFR 261.4(a)(4)]. This type of mixture is referred to as **mixed waste** (MW). Additional exclusions are itemized in **40 CFR 261.4**.



So Far So Good, BUT Why Is It Not As  
Simple As It Looks?

*Recyclable Materials* May Or May Not  
Be Solid Waste, Depending On The  
Specific Material And Method Of  
Recycling

### Materials **Are Solid Wastes** **When Recycled** Through:

- Uses constituting disposal (i.e., applying to land or adding to other materials that are applied to land),
- Burning for energy recovery,
- Reclaiming (processing to recover usable product), or
- Speculatively accumulating before recycling.

Materials are solid wastes if they are **recycled** (or accumulated, stored, or treated before recycling) by (1) **applying to the land** or using in products that are applied to the land (unless the material is a **commercial chemical product** and land application is its ordinary manner of use) or (2) **burning** for energy recovery or using to produce fuels (unless the material is a commercial chemical product that is itself a fuel). Wastes that are processed to obtain usable product (**reclaiming**), such as spent solvents that are distilled, also may qualify as solid wastes. However, commercial chemical products are one type of material that do not qualify as solid waste when recycled. [**40 CFR 261.2(c)**]

**Speculative accumulation** refers to accumulating a waste with the intent of recycling [**40 CFR 261.1(c)(8)**].

To demonstrate that the wastes are not accumulated speculatively, one must show that 75% of the waste on-site at the beginning of the calendar year is recycled by the end of that year. If one accumulates rather than recycles a secondary material, that material is a solid waste and must be further evaluated to determine whether it is hazardous.

Some materials at DOE facilities have been accumulated for future recycling. Such materials may be solid wastes. When they also qualify as hazardous wastes, they must be managed according to RCRA Subtitle C hazardous waste management standards.

### Materials Are Not Solid Waste When *Recycled* IF They Are

- *Used or reused as ingredients* in an industrial process to make a product, provided they are not being reclaimed,
- *Used or reused as substitutes* for commercial products, or
- *Returned to the original process* from which they are generated without first being reclaimed or land disposed (must substitute for raw material feedstock in a process that uses mainly raw materials as feedstocks).

The recycling methods in the slide have one feature in common, the secondary material that is recycled can be reused directly without first processing it to obtain a usable product [*40 CFR 261.2(e)*].

Also note, the materials used, reused, or returned to the original process *remain solid wastes* if one of the following applies:

- the material is used in a manner constituting disposal or used to produce a product that is applied to the land;
- the material is burned for energy recovery, used to produce a fuel, or contained in a fuel;
- the material is accumulated speculatively; or
- the material is inherently waste-like (e.g., dioxin-containing wastes that are always solid wastes, no matter how they are recycled).

If, however, the material in question is used in a manner consistent with its intended use (e.g., the material is normally applied to ground as a fertilizer), the material remains a product rather than a waste.

Are You Confused?



How Do We Sort Out  
Which Other Recyclable  
Materials Are Solid  
Wastes?

**Table 1, 40 CFR 261.2,**  
has some answers

**Table 1** Addresses The Following  
Wastes That May Be Beneficially  
Reused:

- spent materials
- sludges
- by-products
- commercial chemical products
- scrap metal

The application of the RCRA definition of solid waste to recyclable materials depends on the types of materials *and* the method of recycling. **40 CFR 261.2, Table 1**, addresses the following secondary materials:

**Spent material:** Any material that has been used and, as a result of contamination, can no longer serve the purpose for which it was produced without processing [40 CFR 261.1(c)(1)].

**Sludge:** Solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant. (**40 CFR 260.10**)

**By-products:** A material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples include process residues such as slags or distillation column bottoms. The term does not include a **co-product** that is produced for the general public's use and is ordinarily used in the form it is produced by the process [40 CFR 261.1(c)(3)].

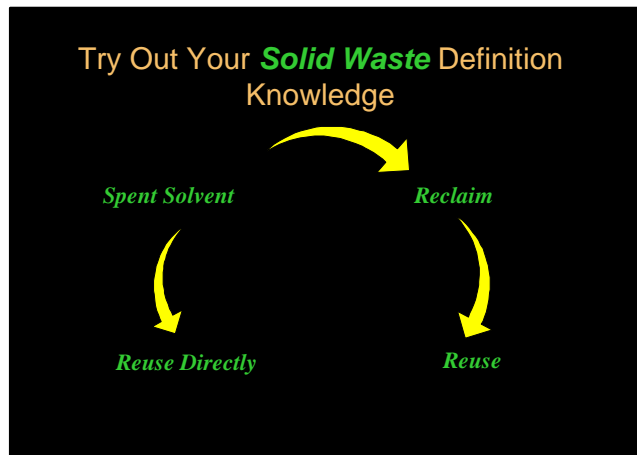
**Commercial chemical products** EPA does not define the term but instead refers to **40 CFR 261.33**, the list of discarded commercial chemical products. EPA, however, views the list as more expansive than 40 CFR 261.33. In 50 FR 14219, EPA clarifies that discarded commercial chemicals also include discarded products not identified in 261.33. EPA has interpreted that items such as batteries and printed circuit boards are commercial chemical products.

**Scrap metal:** Bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles, railroad box cars), which when worn or superfluous can be recycled [40 CFR 261.1(c)(6)].

The provisions for **recyclable materials** referenced in **40 CFR 261.6** are also important in determining which recyclable materials are regulated. For example, Table 1 (40 CFR 261.2) indicates that scrap metal is a solid waste. 40 CFR 261.6(a)(3)(ii) excludes recyclable scrap metal solid waste from hazardous waste requirements.

**Table 1, 40 CFR 261.2(c) defines how recyclable materials generated from one process are regulated when they are reused elsewhere. “Yes” means the recyclable material is regulated as solid waste, and “No” means it is not.**

<b>Recyclable Material</b>	<b>Used In Manner Constituting Disposal</b>	<b>Burned for Energy Recovery</b>	<b>Reclaimed</b>	<b>Speculatively Accumulated</b>
Spent Materials	Yes	Yes	Yes	Yes
Listed Sludges	Yes	Yes	Yes	Yes
Characteristic Hazardous Sludges	Yes	Yes	No	Yes
Listed By-Products	Yes	Yes	Yes	Yes
Characteristic Hazardous By-Products	Yes	Yes	No	Yes
Commercial Chemical Products	Yes	Yes	No	No
Scrap Metal	Yes	Yes	Yes	Yes



Let's look at a few examples.

Example to Explore **Solid Waste**  
Definition

Sierra Club vs. United States Department of Energy and  
Rockwell International  
Corporation

Case No. 89-B-181

District of Colorado  
1990

DOE operated an incinerator for the recovery of plutonium at Building 771, Rocky Flats. Halogenated solvents, xylene, methanol, and carbon tetrachloride have been incinerated in Building 771. Kimwipes contaminated with solvents have also been incinerated in Building 771.

Was this activity subject to RCRA?

One key part of the decision relates to whether these materials are beneficially recycled in a manner that excludes them from RCRA regulation or they are subject to full RCRA hazardous waste requirements. The solid waste definition is an essential part of this determination.



## Summary

- The solid waste definition is a key hazardous waste concept because only solid wastes can be hazardous waste.
- Solid wastes are materials that are no longer usable for their intended purpose.
- Recyclable materials may be solid waste, depending on the waste and method of recycling.

Which Solid Wastes Are  
*Hazardous Wastes?*



## Self-Assessment Questions: Solid Waste Definition Module

### I. Circle the correct answer(s).

1. Solid wastes include all of the following **except**:
  - a. Discarded commercial chemicals
  - b. Wastes that are being stored for disposal
  - c. Spent solvent being recycled by distillation
  - d. All of the above.
2. Which one of the following **is not** excluded from the solid waste definition?
  - a. Wastes mixed with untreated domestic sewage discharged to a publicly owned treatment works
  - b. Wastewater discharged through a point-source discharge regulated under the Clean Water Act
  - c. Source, special nuclear, and byproduct materials regulated under the Atomic Energy Act
  - d. Flammables subject to the Occupational Safety and Health Administration.
3. Which of the following recyclable materials **is** a solid waste when it is recycled:
  - a. Waste burned for energy recovery
  - b. Commercial chemicals that are reclaimed
  - c. Spent solvent that is directly reused *without* first processing it to recover a useable product
  - d. Excess products transferred to a new user.
4. Which of the following recyclable materials **is not** a solid waste when it is recycled:
  - a. Spent solvent reclaimed by distillation
  - b. Characteristic sludge in storage for more than one year awaiting recycling
  - c. Characteristic by-product used as an effective substitute for a commercial product (no reclamation involved)
  - d. None of the above.

### II. Complete the statement.

1. Five types of secondary materials that may qualify as solid wastes include:
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_
  - e. \_\_\_\_\_
2. Recyclable materials may be solid wastes depending on the \_\_\_\_\_ and \_\_\_\_\_.
3. A material must be a \_\_\_\_\_ before it can be characterized as hazardous waste.

## Self-Assessment Answers: Solid Waste Definition Module

### I. Circle the correct answer(s).

1. Solid wastes include all of the following **except**: [See SW-4 and SW-7]
  - a. Discarded commercial chemicals
  - b. Wastes that are being stored for disposal
  - c. Spent solvent being recycled by distillation
  - d. **All of the above.**
2. Which one of the following **is not** excluded from the solid waste definition? [See SW-5 and SW-7]
  - a. Wastes mixed with untreated domestic sewage discharged to a publicly owned treatment works
  - b. Wastewater discharged through a point-source discharge regulated under the Clean Water Act
  - c. Source, special nuclear, and byproduct materials regulated under the Atomic Energy Act
  - d. **Flammables subject to the Occupational Safety and Health Administration.**
3. Which of the following recyclable materials **is** a solid waste when it is recycled: [See SW-7 and SW-8]
  - a. **Waste burned for energy recovery**
  - b. Commercial chemicals that are reclaimed
  - c. Spent solvent that is directly reused *without* first processing it to recover a useable product
  - d. Excess products transferred to a new user.
4. Which of the following recyclable materials **is not** a solid waste when it is recycled: [See SW-7 and SW-8]
  - a. Spent solvent reclaimed by distillation
  - b. Characteristic sludge in storage for more than one year awaiting recycling
  - c. **Characteristic by-product used as an effective substitute for a commercial product (no reclamation involved)**
  - d. None of the above.

### II. Complete the statement.

1. Five types of secondary materials that may qualify as solid wastes include: [See SW-10]
  - a. Spent materials
  - b. Sludges
  - c. By-products
  - d. Commercial chemical products
  - e. Scrap metals
2. Recyclable materials may be solid wastes depending on the type of material and method of recycling. [See SW-10 and SW-14]
3. A material must be a solid waste before it can be characterized as hazardous waste. [See SW-10 and SW-14]

# SOLID WASTE DEFINITION MODULE

## STATUTORY-REGULATORY CITATION/KEY WORD INDEX

### Statutory/Regulatory Citations

<b><u>Citation(s)</u></b>	<b><u>Page Number(s)</u></b>
40 CFR 260.10 .....	SW-10
40 CFR 261.1(c)(1) .....	SW-10
40 CFR 261.1(c)(3) .....	SW-10
40 CFR 261.1(c)(6) .....	SW-10
40 CFR 261.1(c)(8) .....	SW-9
40 CFR 261.2(a) .....	SW-4
40 CFR 261.2(b) .....	SW-4
40 CFR 261.2(c) .....	SW-4, 7
40 CFR 261.2(d) .....	SW-4
40 CFR 261.2(e) .....	SW-8
40 CFR 261.2, Table 1 .....	SW-9, 10
40 CFR 261.4 .....	SW-5
40 CFR 261.4(a)(1) .....	SW-5
40 CFR 261.4(a)(2) .....	SW-5
40 CFR 261.4(a)(4) .....	SW-5
40 CFR 261.6 .....	SW-10
40 CFR 261.33 .....	SW-10
RCRA Section 1004(27) .....	SW-3, 5
USC 6939(e)(a) .....	SW-5
USC 6939(e)(b) .....	SW-5

### Alphabetical Listing

<b><u>Key Word(s)</u></b>	
Abandoned .....	SW-4
Accumulated speculatively .....	SW-7
Applied to the land .....	SW-4, 7, 8
Atomic Energy Act (AEA) .....	SW-5
Burned for energy recovery .....	SW-4, 7, 8
By-product material .....	SW-5, 10
Closed loop .....	SW-5
Commercial chemical product .....	SW-10
Co-product .....	SW-10
Discarded .....	SW-2, 4
Domestic sewage .....	SW-5
Exclusions from Def. of SW .....	SW-5
Hazardous waste .....	SW-14
Industrial wastewater discharges .....	SW-5

Inherently wastelike .....	SW-4
National Pollutant Elimination Discharge System (NPDES) exclusion .....	SW-5
Point sources .....	SW-5
Publicly owned treatment works (POTW) .....	SW-5
Reclaim .....	SW-7
Recycled .....	SW-4
Recyclable materials .....	SW-9, 10, 14
Returned to the original process .....	SW-8
Reuse .....	SW-4
Scrap metal .....	SW-10
Sludge .....	SW-10
“Solid waste” .....	SW-3, 4, 5, 7, 8, 12, 13
Spent material .....	SW-10
Source, special nuclear, and by-product material .....	SW-5
Special nuclear material .....	SW-5
Speculative accumulation .....	SW-7
Used or reused .....	SW-8
Used to produce a fuel .....	SW-4, 7, 8

### Solid Waste Definition Module Cross-Links

Module Page/Line	Cross-Link Language	Resource/Document
SW-2/Notes, Line 3	“solid waste”	RCRA Definitions of Solid and Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html">http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html</a>
SW-3/Notes, Line 1	“solid waste”	Exclusions and Exemptions from RCRA Hazardous Waste Regulation; DOE/EH-231-034/0593; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/exclude.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/exclude.pdf</a>
SW-3/Notes, Line 3	“RCRA”	OEPA Environmental Law Summary: Resource Conservation and Recovery Act; <a href="http://tis-nt.eh.doe.gov/oepa/law_sum/RCRA.HTM">http://tis-nt.eh.doe.gov/oepa/law_sum/RCRA.HTM</a>
SW-4/Slide, Line 1	“Solid Wastes”	RCRA Definitions of Solid and Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html">http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html</a>
SW-4/Notes, Line 3	“[40 CFR 261.2(a)]”	“Code of Federal Regulations - Retrieve CFR by citation”; <a href="http://www.access.gpo.gov/nara/cfr/index.html">http://www.access.gpo.gov/nara/cfr/index.html</a>
SW-4/Notes, Line 7	“recycled”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>

SW-5/Slide, Lines 1-2	“What Is NOT A Solid Waste?”	Overview of the Identification of Hazardous Waste Under RCRA; DOE/EH-231-007/1291; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/define.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/define.pdf</a>
SW-5/Notes, Line 1	“statutory and regulatory exclusions”	Exclusions and Exemptions from RCRA Hazardous Waste Regulation; DOE/EH-231-034/0593; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/exclude.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/exclude.pdf</a>
SW-5/Notes, Line 4	“POTW exclusion”	RCRA Definitions of Solid and Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html">http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html</a>
SW-5/Notes, Line 9	“Federal Facility Compliance Act”	OEPA Environmental Law Summary: Federal Facility Compliance Act <a href="http://tis-nt.eh.doe.gov/oepa/law_sum/FFCA.HTM">http://tis-nt.eh.doe.gov/oepa/law_sum/FFCA.HTM</a>
SW-5/Notes, Line 11	“FOTWs”	Federal Facility Compliance Act Implications for RCRA Corrective Action; DOE/EH-231-015/0994; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/impl.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/impl.pdf</a>
SW-5/Notes, Line 15	“(NPDES) exclusion”	Exclusions and Exemptions from RCRA Hazardous Waste Regulation; DOE/EH-231-034/0593; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/exclude.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/exclude.pdf</a>
SW-5/Notes, Line 19	“Atomic Energy Act (AEA)”	OEPA Environmental Law Summary: Atomic Energy Act and Related Legislation <a href="http://tis-nt.eh.doe.gov/oepa/law_sum/AEA.HTM">http://tis-nt.eh.doe.gov/oepa/law_sum/AEA.HTM</a>
SW-5/Notes, Lines 19-20	“RCRA Section 1004(27)”	OEPA Environmental Law Summary: Resource Conservation and Recovery Act; <a href="http://tis-nt.eh.doe.gov/oepa/law_sum/RCRA.HTM">http://tis-nt.eh.doe.gov/oepa/law_sum/RCRA.HTM</a>
SW-5/Notes, Line 28	“mixed waste”	EPA Mixed Waste Team Home Page; <a href="http://www.epa.gov/radiation/mixed-waste/index.html#general">http://www.epa.gov/radiation/mixed-waste/index.html#general</a>
SW-5/Notes, Line 30	“40 CFR 261.4”	“Code of Federal Regulations - Retrieve CFR by citation”; <a href="http://www.access.gpo.gov/nara/cfr/index.html">http://www.access.gpo.gov/nara/cfr/index.html</a>
SW-6/Slide, Line 3	“Recyclable Materials”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>



SW-7/Slide, Line 2	“Are Solid Wastes When Recycled”	Special Requirements Applicable to Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/special.html">http://tis-nt.eh.doe.gov/oepa/programs/special.html</a>
SW-7/Notes, Line 1	“recycled”	Special Requirements Applicable to Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/special.html">http://tis-nt.eh.doe.gov/oepa/programs/special.html</a>
SW-7/Notes, Line 3	“applying to the land”	Land Disposal Restrictions (LDR) Overview; DOE/EH-231/005/0293; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/ldr-over.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/ldr-over.pdf</a>
SW-7/Notes, Line 3	“commercial chemical product”	Identification of Certain RCRA Wastes — the F-Spent Solvent, P, and U Listings; DOE/EH-231-008/1291; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/spent.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/spent.pdf</a>
SW-7/Notes, Line 4	“burning”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>
SW-7/Notes, Line 7	“reclaiming”	RCRA Definitions of Solid and Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html">http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html</a>
SW-7/Notes, Lines 9-10	“[40 CFR 261.2(c)]”	“Code of Federal Regulations - Retrieve CFR by citation”; <a href="http://www.access.gpo.gov/nara/cfr/index.html">http://www.access.gpo.gov/nara/cfr/index.html</a>
SW-7/Notes, Line 11	“Speculative accumulation”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>
SW-7/Notes, Line 12	“[40 CFR 261.1(c)(8)]”	“Code of Federal Regulations - Retrieve CFR by citation”; <a href="http://www.access.gpo.gov/nara/cfr/index.html">http://www.access.gpo.gov/nara/cfr/index.html</a>

SW-8/Slide, Line 2	“Recycled”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>
SW-8/Slide, Line 3	“Used or reused as ingredients”	RCRA Definitions of Solid and Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html">http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html</a>
SW-8/Slide, Line 6	“Used or reused as substitutes”	RCRA Definitions of Solid and Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html">http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html</a>
SW-8/Slide, Line 8	Returned to the original process”	RCRA Definitions of Solid and Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html">http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html</a>
SW-8 Notes, Line 3	“[40 CFR 261.2(e)]”	“Code of Federal Regulations - Retrieve CFR by citation”; <a href="http://www.access.gpo.gov/nara/cfr/index.html">http://www.access.gpo.gov/nara/cfr/index.html</a>
SW-8 Notes, Line 5	“remain solid wastes”	Special Requirements Applicable to Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/special.html">http://tis-nt.eh.doe.gov/oepa/programs/special.html</a>
SW-9/Slide, Line 6	“Table 1, 40 CFR 261.2”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>

SW-10/Slide, Line 1	“Table 1”	RCRA Definitions of Solid and Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html">http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html</a>
SW-10/Notes, Line 2	“40 CFR 261.2, Table 1”	“Code of Federal Regulations - Retrieve CFR by citation”; <a href="http://www.access.gpo.gov/nara/cfr/index.html">http://www.access.gpo.gov/nara/cfr/index.html</a>
SW-10/Notes, Line 4	“Spent material”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>
SW-10/Notes, Line 7	“Sludge”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>
SW-10/Notes, Lines 9-10	“40 CFR 260.10”	“Code of Federal Regulations - Retrieve CFR by citation”; <a href="http://www.access.gpo.gov/nara/cfr/index.html">http://www.access.gpo.gov/nara/cfr/index.html</a>
SW-10/Notes, Line 11	“By-products”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>
SW-10/Notes, Line 14	“co-product”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>
SW-10/Notes, Line 16	“Commercial chemical products”	Identification of Certain RCRA Wastes — the F-Spent Solvent, P, and U Listings; DOE/EH-231-008/1291; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/spent.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/spent.pdf</a>
SW-10/Notes, Line 16-17	“40 CFR 261.33”	“Code of Federal Regulations - Retrieve CFR by citation”; <a href="http://www.access.gpo.gov/nara/cfr/index.html">http://www.access.gpo.gov/nara/cfr/index.html</a>
SW-10/Notes, Line 22	“scrap metal”	Exclusions and Exemptions from RCRA Hazardous Waste Regulation; DOE/EH-231-034/0593; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/exclude.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/exclude.pdf</a>
SW-10/Notes, Line 26	“recyclable materials”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>
SW-10/Notes, Line 26	“40 CFR 261.6”	“Code of Federal Regulations - Retrieve CFR by citation”; <a href="http://www.access.gpo.gov/nara/cfr/index.html">http://www.access.gpo.gov/nara/cfr/index.html</a>
SW-11	N/A	N/A

SW-12/Slide, Line 1	“Solid Waste”	RCRA Definitions of Solid and Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html">http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html</a>
SW-12/Slide, Line 3	“Spent Solvent”	Identification of Certain RCRA Wastes — the F-Spent Solvent, P, and U Listings; DOE/EH-231-008/1291; ; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/spent.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/spent.pdf</a>
SW-12/Slide, Line 3	“Reclaim”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990, <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>
SW-12/Slide, Line 4	“Reuse Directly”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990, <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>
SW-12/Slide, Line 4	“Reuse”	Requirements for the Recycling of Hazardous Waste; DOE/EH-231-001/0990; <a href="http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf">http://tis-nt.eh.doe.gov/oepa/guidance/rcra/recycle.pdf</a>
SW-13/Slide, Line 1	“Solid Waste”	RCRA Definitions of Solid and Hazardous Waste Automated Guidance (Windows Version); <a href="http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html">http://tis-nt.eh.doe.gov/oepa/programs/rcradef.html</a>
SW-14	N/A	N/A
SW-15/Slide, Line 2	“Hazardous Wastes”	“Definition of Hazardous Waste” module, Page 1